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A new species of the genus *Khorata* (Aranei: Pholcidae) from Guizhou Province, China

Новый вид пауков рода *Khorata* (Aranei: Pholcidae) из провинции Гуйчжоу, Китай

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КЛЮЧЕВЫЕ СЛОВА: Aranei, Pholcidae, *Khorata*, новый вид, China

ABSTRACT: *Khorata xingyi* sp.n., a six-eyed pholcid spider from Guizhou Province, China, is diagnosed, described and illustrated.

РЕЗЮМЕ: Описан новый вид шестиглазых пауков-фольцид *Khorata xingyi* sp.n. из китайской провинции Гуйчжоу.

Introduction

Pholcids are small to medium-sized, ecribellate, haplogyne; usually with six or eight eyes, rarely with two. Cave species are often blind [Huber, 2000]. The family has an almost-worldwide distribution. Pholcids occupy a wide range of ecosystems and habitats; many species have been found in caves, and some of these are highly troglomorphic, a condition which includes the total loss of eyes. Some pholcids are also found in dry regions [Huber, 2001; Huber & Brescovit, 2003; Huber & El Hennawy, 2007]. The pholcidae family is ninth largest worldwide and is represented by 85 genera and 999 species; of these, 55 species belonging to 10 genera are found in China [Huber, 2005a; Platnick, 2008].

Huber [2005b] established the genus *Khorata*, initially comprising four species from Laos and Thailand: *K. khammouan* Huber, 2005, *K. jaegeri* Huber, 2005, *K. schwendingeri* Huber, 2005, *K. bangkok* Huber, 2005. Tong & Li (2008) described a new species, *K. diaoluoshanensis* Tong & Li, 2008, from China.

All species of *Khorata* are found in primary and secondary forests and some near or in limestone caves. The purpose of this contribution is to describe a new species, one male and six females, of *Khorata* from caves in Xingyi County, Guizhou Province, southwestern China. This paper is the first report of cave species of the genus *Khorata* from China.

Methods

Terminology and taxonomic descriptions followed Huber [2000, 2005b]. All measurements given are in millimeters. Carapace length was measured from the anterior margin to the rear margin of the carapace medially, excluding the clypeus. Total length is the sum of carapace and abdomen length, regardless of the pedicel. The measurements of legs are as follow: total length (femur + patella + tibia + metatarsus + tarsus). All specimens are preserved in 75% alcohol and were examined, drawn and measured under a Tech XTL-II stereomicroscope equipped with an Abbe drawing device. Epigyne were removed and cleared in 10% warm solution of potassium hydroxide (KOH), transferred to alcohol and temporarily mounted for drawing. Type specimens of new species are deposited in the Museum of Hebei University (MHBU), Baoding, China.

The following abbreviations are used: ALE — anterior lateral eyes; AME — anterior median eyes; PME — posterior median eyes.

Khorata Huber, 2005

Khorata Huber, 2005: 79.

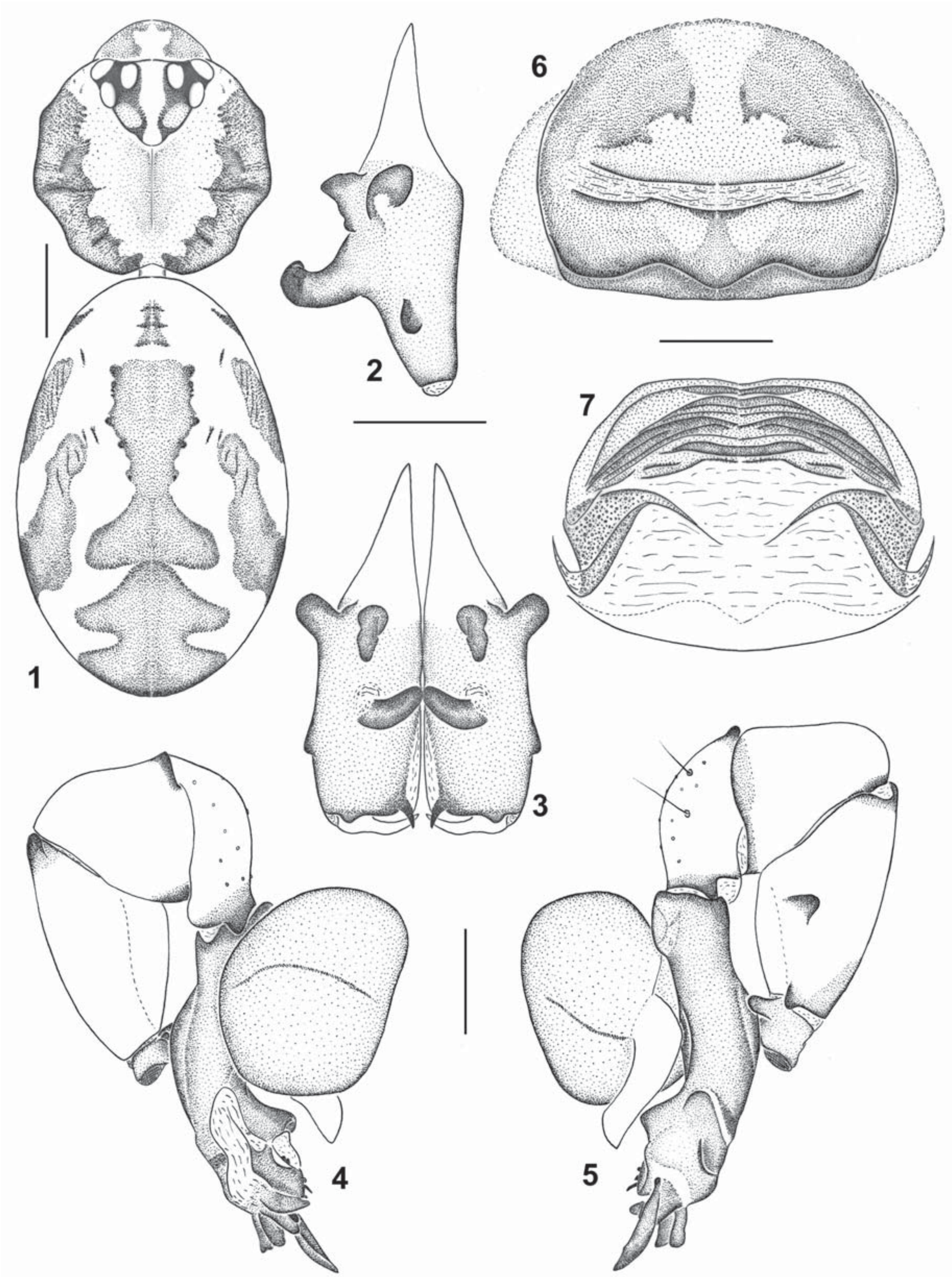
Type species: *Khorata khammouan* Huber, 2005, by original designation.

DIAGNOSIS AND DESCRIPTION. See Huber [2005b].

REMARK. So far, this genus contains 5 species [Huber, 2005; Tong & Li, 2008]; *K. khammouan* Huber, 2005 and *K. jaegeri* Huber, 2005 from Laos only; *K. schwendingeri* Huber, 2005 and *K. bangkok* Huber, 2005 both from Laos and Thailand, as well as *K. diaoluoshanensis* Tong & Li, 2008 from China only.

The most distinctive characters of *Khorata* are six eyes in two lateral triads, no AME; and all with a nearly globose abdomen. Each male chelicera is equipped with a sclerotized ledge laterally, a distinctive projection proximally and a distal apophysis. Male palpal femur with small retrolateral apophysis, bulb usually only with membranous embolus [Huber, 2005].

Of the ten Pholcidae genera known from China, two only, *Spermophora* Hentz, 1841 and *Belisana* Thorell 1898, have six eyes and a nearly globose abdomen; however, compared to *Khorata*, they have differing bulbs and male cheliceral apophyses. The other six genera, excluding *Khorata*, all have eight eyes, viz, *Artema*, *Crossopriza*, *Micropholcus*, *Physocyclus*, *Smeringopus* and *Tibetia*. The remaining genus, *Pholcus* has a few six-eyed species but these have an elongate abdomen.



Figs. 1–7. *Khorata xingyi* sp.n.. 1 — male body, dorsal view; 2 — left chelicera, lateral view; 3 — male chelicerae, frontal view; 4 — male left palp, prolateral view; 5 — same, retrolateral view; 6 — epigynum, ventral view; 7 — same, dorsal view. Scale lines: 0.5 mm (1), 0.3 mm (2–7).

Рис. 1–7. *Khorata xingyi* sp.n. 1 — габитус самца; 2 — левая хелицера самца, сбоку; 3 — хелицера самца, спереди; 4 — левая пальпа самца, пролатерально; 5 — левая пальпа самца, ретролатерально; 6 — эпигина снизу; 7 — эпигина, сверху. Масштаб: 0,5 мм (1), 0,3 мм (2–7).

Khorata xingyi, **sp.n.**
Figs 1–7.

MATERIAL. Holotype: ♂, Mingyang Cave, Xingtian Village, Pengzha Town, Xingyi County 25°06'N, 104°48'E, Guizhou Province, leg. H.M. Chen, 27 May 2006. Paratypes: 6 ♀♀, same data as holotype.

DIAGNOSIS. This species resembles *K. diaoluoshanensis* in the shape of the palpal bulb, but can be distinguished from the latter by the shape of the distal element of the procursus (Figs 4–5); by having the frontal apophyses close together, and pair of sclerotized apophyses proximocentrally of the male chelicerae (Figs 2–3); also by the shape of epigynum (Figs 6–7).

DESCRIPTION. MALE (holotype). Total length 2.70 (2.77 with clypeus): carapace 0.95 long, 1.09 wide; abdomen 1.75 long, 1.35 wide. Leg 1: 23.33 (6.03 + 0.49 + 5.85 + 9.00 + 2.96), tibia 2: 3.78, tibia 3: 2.79, tibia 4: 3.66, tibia 1 L/D: 45. Carapace ochre with black margins and dark marks behind ocular area; sternum dark. Legs ochre, with slightly darker ring on femora (subdistally) and tibiae (proximally and subdistally). Abdomen grey with large black spots (Fig. 1) on both dorsal and ventral sides. Ocular area slightly elevated and separated from carapace, thoracic furrow shallow but distinct; PME–PME 0.13; PME 0.14; PME–ALE 0.03; AME absent. Clypeus unmodified. Sternum slightly wider than long (0.88/0.78). Chelicerae (Figs 2–3) with pair of long frontal apophyses (tips close together), pair of sclerotized apophyses proximocentrally, pair of strong proximal apophyses provided with scales, without modified hairs, with lateral ledges. Palps (Figs 4–5): trochanter with retrolateral apophysis; femur with small retrolateral apophysis; patella long; procursus relatively simple except distally, bulb simple, no projection apart from embolus. Retrolateral trichobothrium of tibia 1 at 5%; legs without spines, vertical hairs, or curved hairs; tarsus 1 with more than 20 pseudosegments, but only distally a few fairly distinct.

FEMALE. In general similar to male. Tibia 1 in 6 females 4.78–5.94 (mean 5.26). Epigynum black (Fig. 6), with an wavy margin posteriorly, without distinct pockets. Dorsal view of epigynum (Fig. 7) with nearly triangular pore plates.

ETYMOLOGY. The specific name is a noun in apposition, taken from the type locality.

DISTRIBUTION. Known only from type locality.

NATURAL HISTORY. A troglophilous species; all specimens were found near the twilight zone, about 10 m from the entrance, of a moist cave about 10 m high and 200 m long. Small moths and mosquitoes were found in irregular small webs located in concavities.

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